



SEQUENCE LISTING

<110> OHNO, SHIGERU
TANNE, KAZUO
DOI, TAKEYOSHI

<120> METHOD FOR PREVENTING MINERALIZATION IN THE PERIODONTAL LIGAMENT (PDL)

<130> 245819US0

<140> 10/717,708

<141> 2003-11-21

<160> 4

<170> PatentIn version 3.2

<210> 1

<211> 2691

<212> DNA

<213> Homo sapiens

<400> 1

gcttgcccgt	cggctcgctag	ctcgctcggg	gcgcgctcgtc	ccgctccatg	gcgctcttcg	60
tgcggtgctg	ggctctcgcc	ctggctctgg	ccctgggccc	cgccgcgacc	ctggcggggc	120
ccgccaagtc	gccctaccag	ctggtgctgc	agcacagcag	gctccggggc	cgccagcacg	180
gccccaacgt	gtgtgctgtg	cagaagggtta	ttggcactaa	taggaagtac	ttcaccaact	240
gcaagcagtg	gtaccaaagg	aaaatctgtg	gcaaatcaac	agtcatcagc	tacgagtgtc	300
gtcctggata	tgaaaagggtc	cctggggaga	agggtgtcc	agcagcccta	ccactctcaa	360
acctttacga	gaccctggga	gtcgttggtg	ccaccaccac	tcagctgtac	acggaccgca	420
cggagaagct	gaggcctgag	atggaggggc	ccggcagctt	caccatcttc	gcccctagca	480
acgaggcctg	ggcctccttg	ccagctgaag	tgctggactc	cctgggtcagc	aatgtcaaca	540
ttgagctgct	caatgccctc	cgctaccata	tggtgggcag	gcgagtcctg	actgatgagc	600
tgaaacacgg	catgaccctc	acctctatgt	accagaattc	caacatccag	atccaccact	660
atcctaattg	gattgtaact	gtgaactgtg	cccggctcct	gaaagccgac	caccatgcaa	720
ccaacggggg	ggtgcacctc	atcgataagg	tcattctccac	catcaccaac	aacatccagc	780
agatcattga	gatcgaggac	acctttgaga	cccttcgggc	tgctgtggct	gcatcagggc	840
tcaacacgat	gcttgaagggt	aacggccagt	acacgctttt	ggccccgacc	aatgaggcct	900
tcgagaagat	ccctagtgtg	actttgaacc	gtatcctggg	cgacccagaa	gccctgagag	960
acctgctgaa	caaccacatc	ttgaagtcag	ctatgtgtgc	tgaagccatc	gttgcggggc	1020
tgtctgtaga	gaccctggag	ggcacgacac	tgaggtggg	ctgcagcggg	gacatgctca	1080
ctatcaacgg	gaaggcgatc	atctccaata	aagacatcct	agccaccaac	ggggtgatcc	1140
actacattga	tgagctactc	atcccagact	cagccaagac	actatttgaa	ttggctgcag	1200
agtctgatgt	gtccacagcc	attgaccttt	tcagacaagc	cggcctcggc	aatcatctct	1260
ctggaagtga	gcggttgacc	ctcctggctc	ccctgaattc	tgtattcaaa	gatggaaccc	1320
ctccaattga	tgcccataca	aggaatttgc	ttcggaacca	cataattaaa	gaccagctgg	1380

cctctaagta tctgtaccat ggacagaccc tggaaactct gggcggcaaa aaactgagag 1440
tttttgttta tcgtaatagc ctctgcattg agaacagctg catcgcggcc cacgacaaga 1500
gggggaggta cgggaccctg ttcacgatgg accgggtgct gacccccca atggggactg 1560
tcatggatgt cctgaaggga gacaatcgct ttagcatgct ggtagctgcc atccagtctg 1620
caggactgac ggagaccctc aaccgggaag gagtctacac agtctttgct cccacaaatg 1680
aagccttccg agccctgccca ccaagagaac ggagcagact cttgggagat gccaaggaac 1740
ttgccaacat cctgaaatac cacattgggtg atgaaatcct ggtagcgga ggcacgggg 1800
ccctggtgctg gctaaaagtct ctccaagggtg acaagctgga agtcagcttg aaaaacaatg 1860
tggtgagtgt caacaaggag cctgttgccg agcctgacat catggccaca aatggcgtgg 1920
tccatgtcat caccaatggt ctgcagcctc cagccaacag acctcaggaa agaggggatg 1980
aacttgcaga ctctgcgctt gagatcttca aacaagcatc agcgttttcc agggctttcc 2040
agaggctctgt gcgactagcc cctgtctatc aaaagttatt agagaggatg aagcattagc 2100
ttgaagcact acaggaggaa tgcaccacgg cagctctccg ccaatttctc tcagatttcc 2160
acagagactg tttgaatggt ttcaaaacca agtatcacac tttaatgtac atgggccgca 2220
ccataatgag atgtgagcct tgtgcatgtg ggggaggagg gagagagatg tactttttaa 2280
atcatgttcc ccctaaacat ggctgttaac ccaactgcatg cagaaacttg gatgtcactg 2340
cctgacattc acttccagag aggacctatc ccaaatgtgg aattgactgc ctatgccaaag 2400
tccctggaaa aggagcttca gtattgtggg gctcataaaa catgaatcaa gcaatccagc 2460
ctcatgggaa gtcctggcac agtttttgta aagcccttgc acagctggag aaatggcatc 2520
attataagct atgagttgaa atgttctgtc aaatgtgtct cacatctaca cgtggcttgg 2580
aggcttttat ggggccctgt ccaggtagaa aagaaatggt atgtagagct tagatttccc 2640
tattgtgaca gagccatggt gtgtttgtaa taataaaacc aaagaaacat a 2691

<210> 2
<211> 683
<212> PRT
<213> Homo sapiens

<400> 2

Met Ala Leu Phe Val Arg Leu Leu Ala Leu Ala Leu Ala Leu Ala Leu
1 5 10 15

Gly Pro Ala Ala Thr Leu Ala Gly Pro Ala Lys Ser Pro Tyr Gln Leu
20 25 30

Val Leu Gln His Ser Arg Leu Arg Gly Arg Gln His Gly Pro Asn Val
35 40 45

Cys Ala Val Gln Lys Val Ile Gly Thr Asn Arg Lys Tyr Phe Thr Asn
50 55 60

Cys Lys Gln Trp Tyr Gln Arg Lys Ile Cys Gly Lys Ser Thr Val Ile
65 70 75 80

Ser Tyr Glu Cys Cys Pro Gly Tyr Glu Lys Val Pro Gly Glu Lys Gly
85 90 95

Cys Pro Ala Ala Leu Pro Leu Ser Asn Leu Tyr Glu Thr Leu Gly Val
100 105 110

Val Gly Ser Thr Thr Thr Gln Leu Tyr Thr Asp Arg Thr Glu Lys Leu
115 120 125

Arg Pro Glu Met Glu Gly Pro Gly Ser Phe Thr Ile Phe Ala Pro Ser
130 135 140

Asn Glu Ala Trp Ala Ser Leu Pro Ala Glu Val Leu Asp Ser Leu Val
145 150 155 160

Ser Asn Val Asn Ile Glu Leu Leu Asn Ala Leu Arg Tyr His Met Val
165 170 175

Gly Arg Arg Val Leu Thr Asp Glu Leu Lys His Gly Met Thr Leu Thr
180 185 190

Ser Met Tyr Gln Asn Ser Asn Ile Gln Ile His His Tyr Pro Asn Gly
195 200 205

Ile Val Thr Val Asn Cys Ala Arg Leu Leu Lys Ala Asp His His Ala
210 215 220

Thr Asn Gly Val Val His Leu Ile Asp Lys Val Ile Ser Thr Ile Thr
225 230 235 240

Asn Asn Ile Gln Gln Ile Ile Glu Ile Glu Asp Thr Phe Glu Thr Leu
245 250 255

Arg Ala Ala Val Ala Ala Ser Gly Leu Asn Thr Met Leu Glu Gly Asn
260 265 270

Gly Gln Tyr Thr Leu Leu Ala Pro Thr Asn Glu Ala Phe Glu Lys Ile
275 280 285

Pro Ser Glu Thr Leu Asn Arg Ile Leu Gly Asp Pro Glu Ala Leu Arg
290 295 300

Asp Leu Leu Asn Asn His Ile Leu Lys Ser Ala Met Cys Ala Glu Ala
305 310 315 320

Ile Val Ala Gly Leu Ser Val Glu Thr Leu Glu Gly Thr Thr Leu Glu
325 330 335

Val Gly Cys Ser Gly Asp Met Leu Thr Ile Asn Gly Lys Ala Ile Ile
3

340

345

350

Ser Asn Lys Asp Ile Leu Ala Thr Asn Gly Val Ile His Tyr Ile Asp
355 360 365

Glu Leu Leu Ile Pro Asp Ser Ala Lys Thr Leu Phe Glu Leu Ala Ala
370 375 380

Glu Ser Asp Val Ser Thr Ala Ile Asp Leu Phe Arg Gln Ala Gly Leu
385 390 395 400

Gly Asn His Leu Ser Gly Ser Glu Arg Leu Thr Leu Leu Ala Pro Leu
405 410 415

Asn Ser Val Phe Lys Asp Gly Thr Pro Pro Ile Asp Ala His Thr Arg
420 425 430

Asn Leu Leu Arg Asn His Ile Ile Lys Asp Gln Leu Ala Ser Lys Tyr
435 440 445

Leu Tyr His Gly Gln Thr Leu Glu Thr Leu Gly Gly Lys Lys Leu Arg
450 455 460

Val Phe Val Tyr Arg Asn Ser Leu Cys Ile Glu Asn Ser Cys Ile Ala
465 470 475 480

Ala His Asp Lys Arg Gly Arg Tyr Gly Thr Leu Phe Thr Met Asp Arg
485 490 495

Val Leu Thr Pro Pro Met Gly Thr Val Met Asp Val Leu Lys Gly Asp
500 505 510

Asn Arg Phe Ser Met Leu Val Ala Ala Ile Gln Ser Ala Gly Leu Thr
515 520 525

Glu Thr Leu Asn Arg Glu Gly Val Tyr Thr Val Phe Ala Pro Thr Asn
530 535 540

Glu Ala Phe Arg Ala Leu Pro Pro Arg Glu Arg Ser Arg Leu Leu Gly
545 550 555 560

Asp Ala Lys Glu Leu Ala Asn Ile Leu Lys Tyr His Ile Gly Asp Glu
565 570 575

Ile Leu Val Ser Gly Gly Ile Gly Ala Leu Val Arg Leu Lys Ser Leu
580 585 590

Gln Gly Asp Lys Leu Glu Val Ser Leu Lys Asn Asn Val Val Ser Val
595 600 605

Asn Lys Glu Pro Val Ala Glu Pro Asp Ile Met Ala Thr Asn Gly Val
610 615 620

Val His Val Ile Thr Asn Val Leu Gln Pro Pro Ala Asn Arg Pro Gln
 625 630 635 640

Glu Arg Gly Asp Glu Leu Ala Asp Ser Ala Leu Glu Ile Phe Lys Gln
 645 650 655

Ala Ser Ala Phe Ser Arg Ala Ser Gln Arg Ser Val Arg Leu Ala Pro
 660 665 670

Val Tyr Gln Lys Leu Leu Glu Arg Met Lys His
 675 680

<210> 3
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic oligonucleotide

<400> 3
 gaagtcctgg actccctggt 20

<210> 4
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> synthetic oligonucleotide

<400> 4
 ctgcagccca cctccagtgt 20